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Miller

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(54) **UNIVERSAL STAND ASSISTANCE DEVICES, KITS THEREFOR, AND METHODS RELATED THERETO**

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A47C 31/00	(2006.01)
A61G 5/14	(2006.01)
A61G 7/10	(2006.01)

(52) **U.S. Cl.**

CPC ***A61G 7/053*** (2013.01); ***A47C 31/00*** (2013.01); ***A61G 5/14*** (2013.01); ***A61G 7/1038*** (2013.01)

(58) **Field of Classification Search**

CPC A61G 7/053; A61G 7/1038; A61G 5/14
USPC ... 135/65, 67; 5/81.1 R, 662, 424, 425, 428, 5/429, 426; 297/411.23; 1/65, 67
See application file for complete search history.

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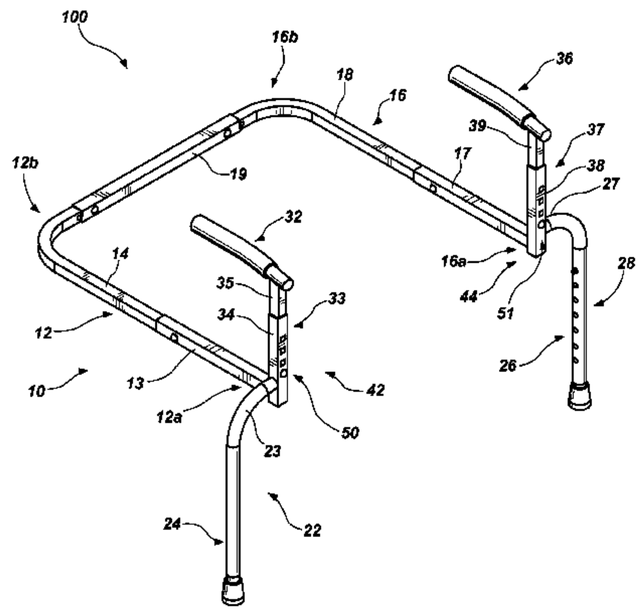
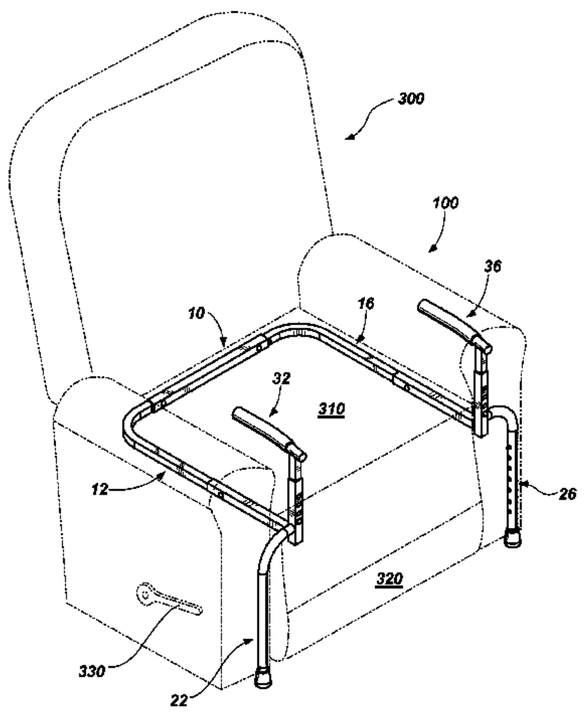
(57) **ABSTRACT**

Universal stand assistance devices, kits therefor, and methods related thereto are disclosed herein. The universal stand assistance devices may include an anchor having a first arm and a second arm. A length of each of the first and second arms may be adjustable. The universal stand assistance devices may further include first and second legs. The height of each of the first and second legs may be adjustable. The universal stand assistance devices may further include handles adjustable in height.

23 Claims, 8 Drawing Sheets





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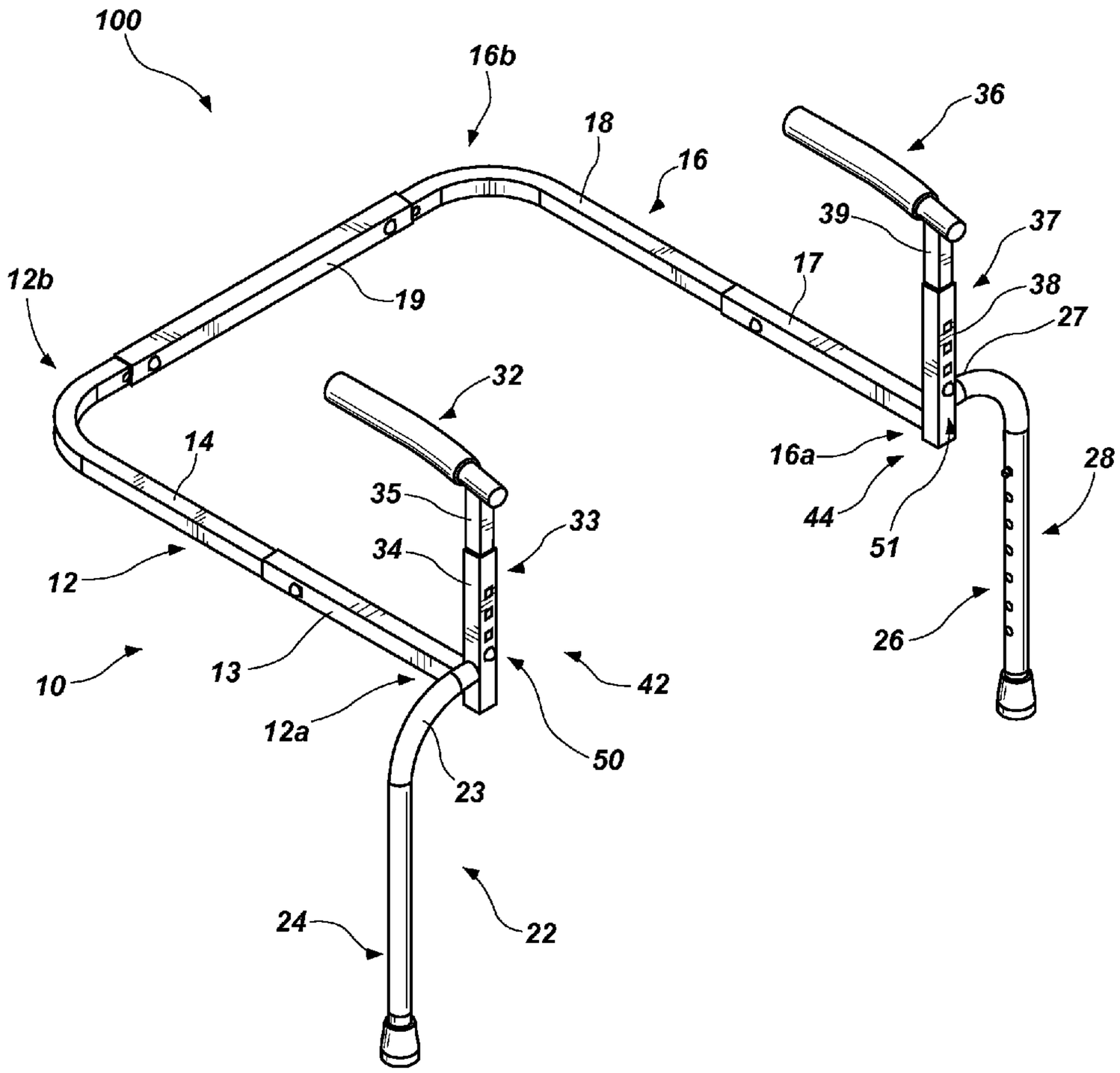
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FIG. 1

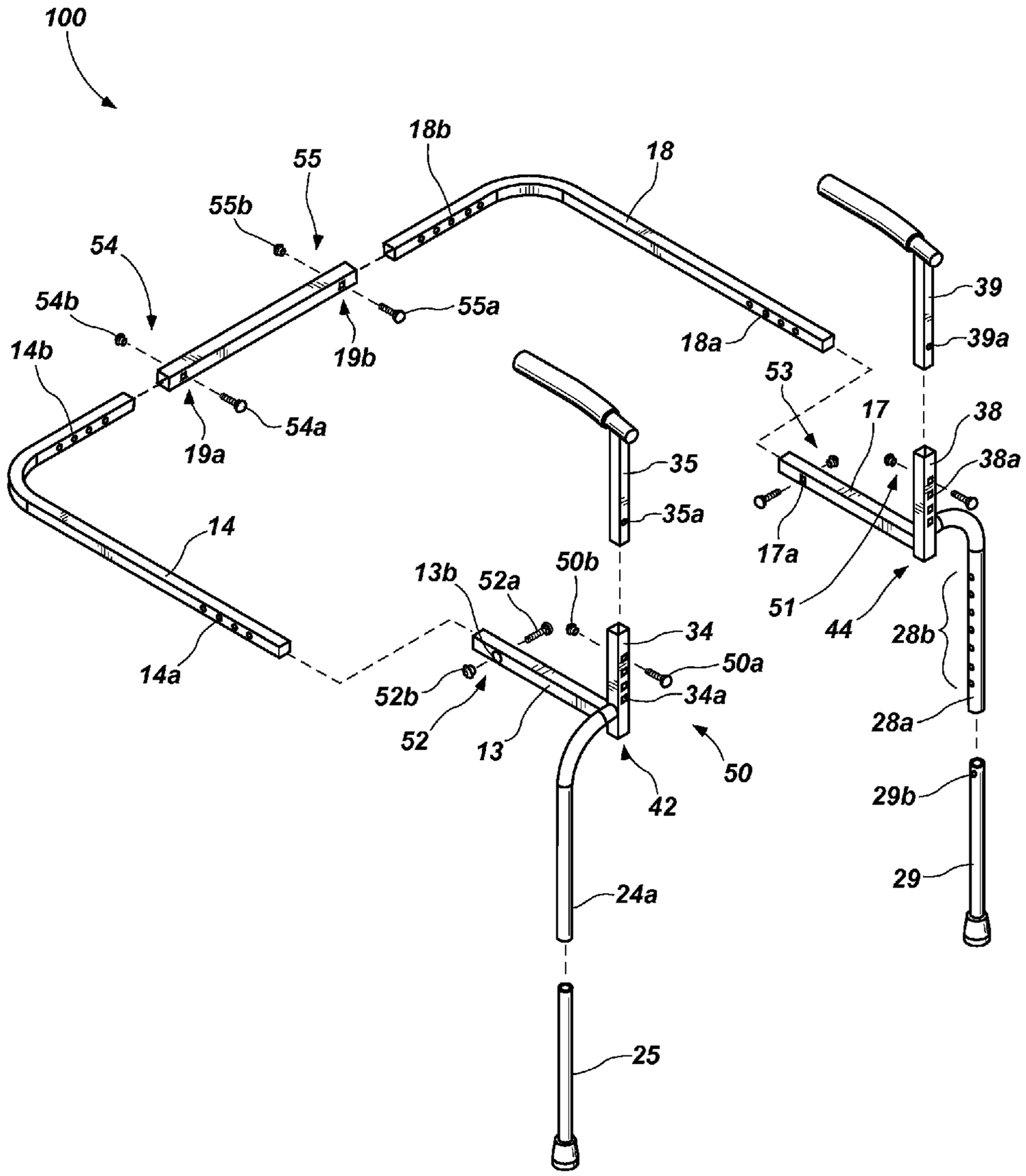
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FIG. 2

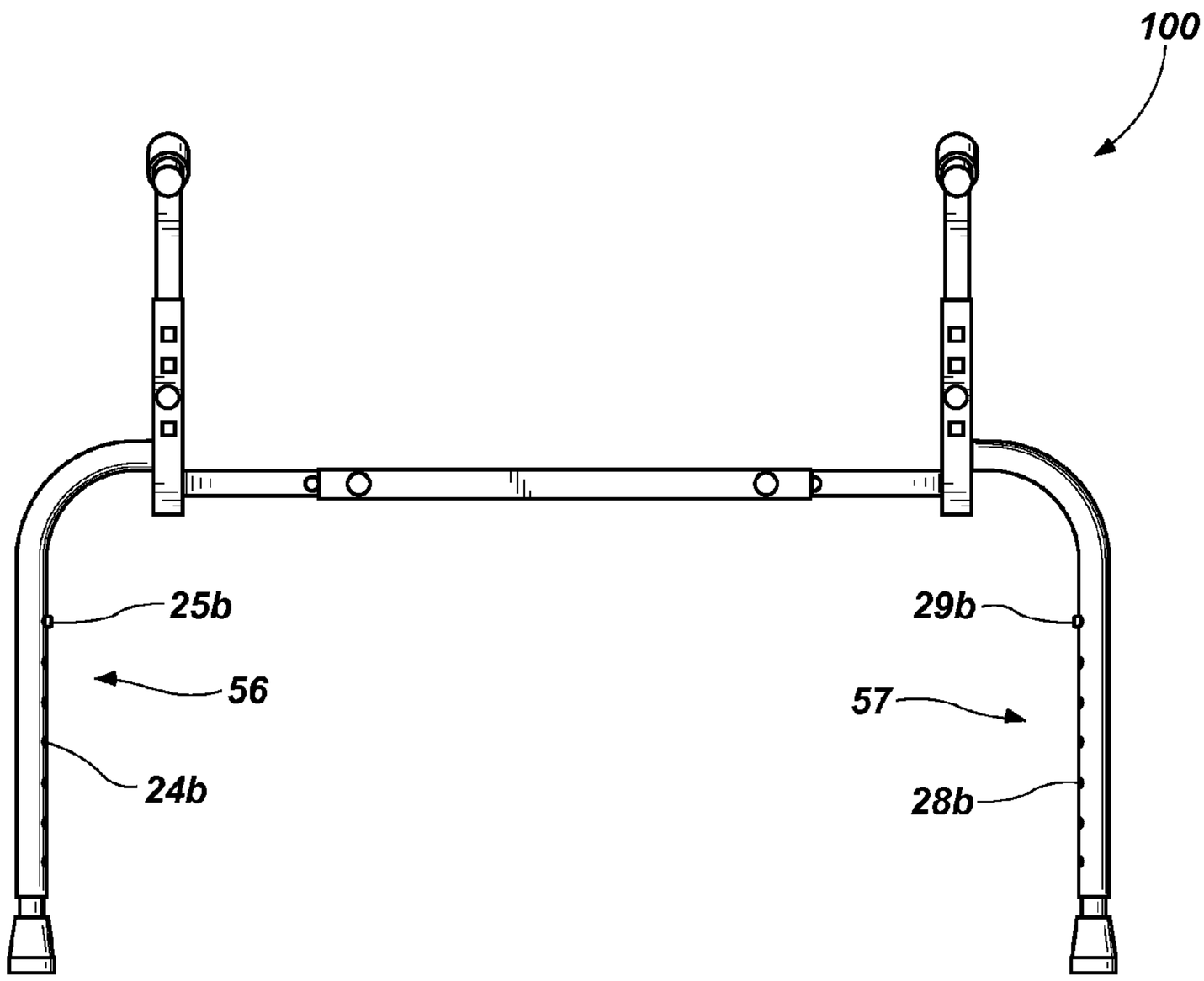

FIG. 3

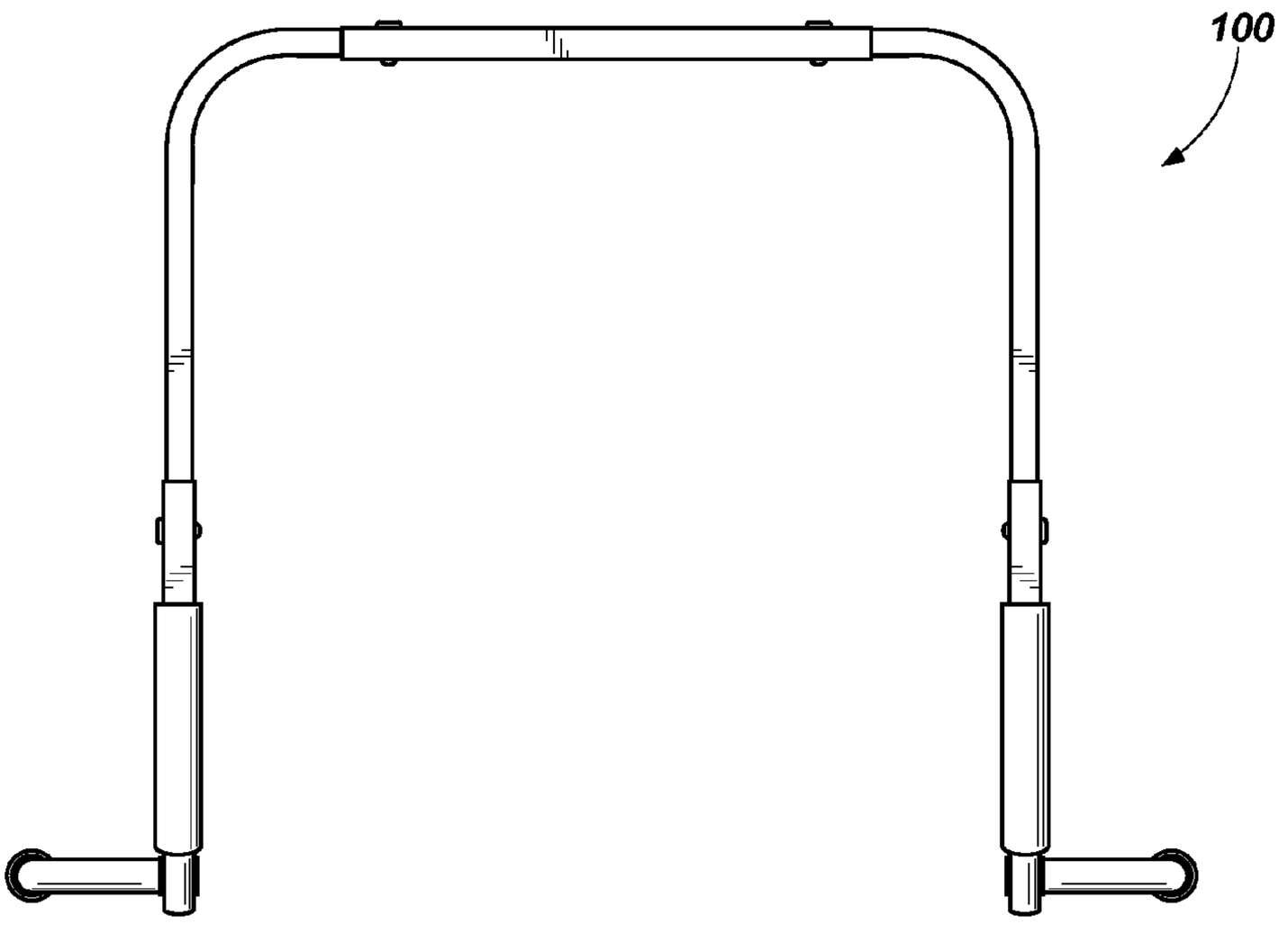

FIG. 4

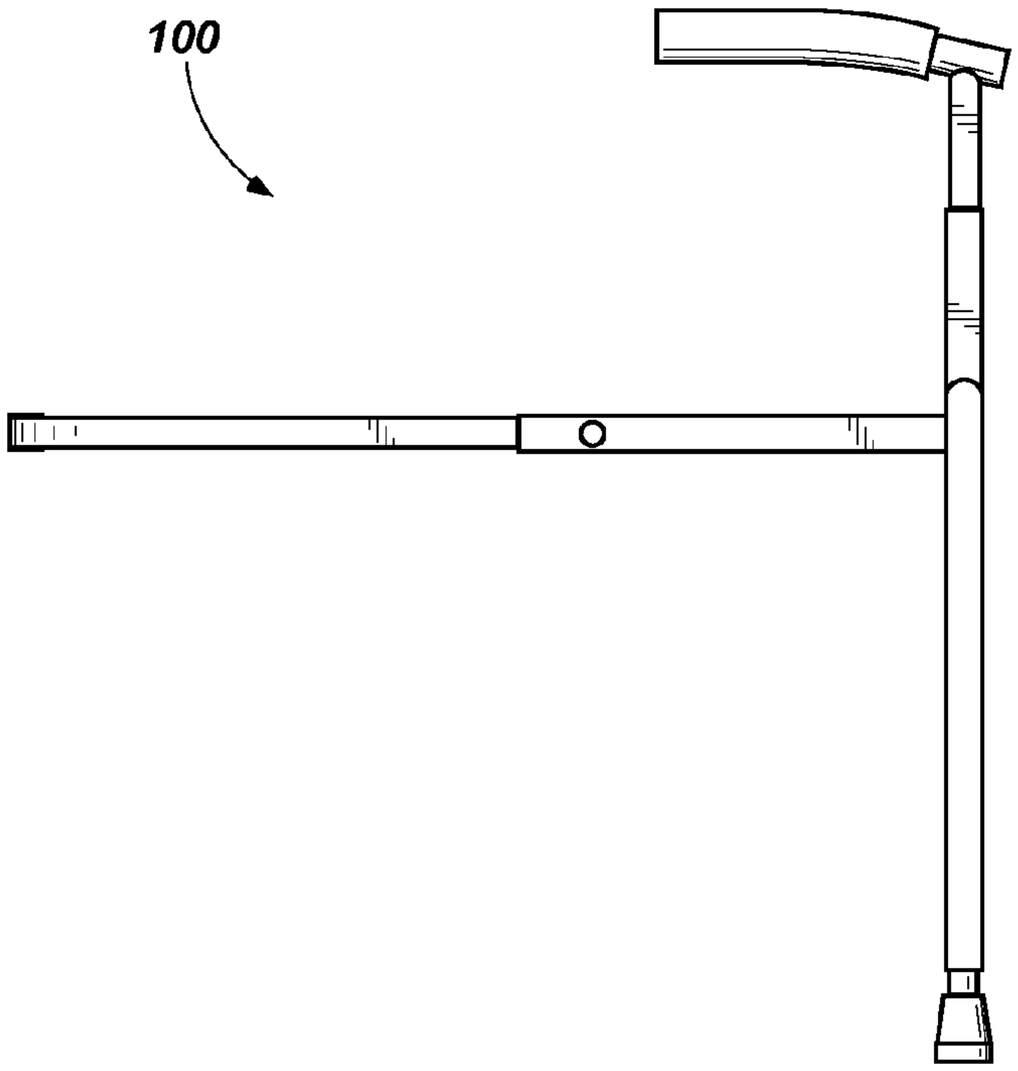

FIG. 5

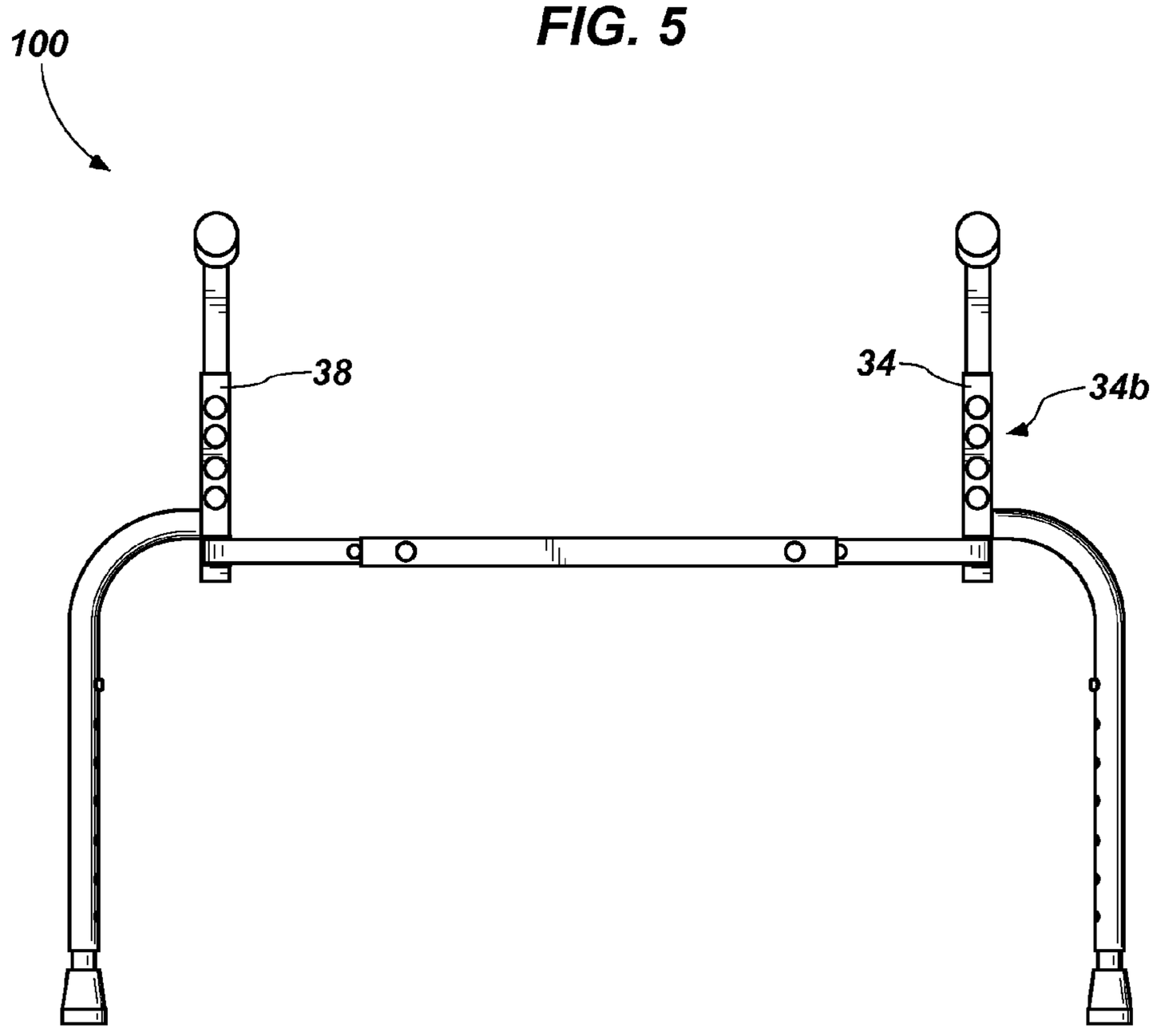

FIG. 6

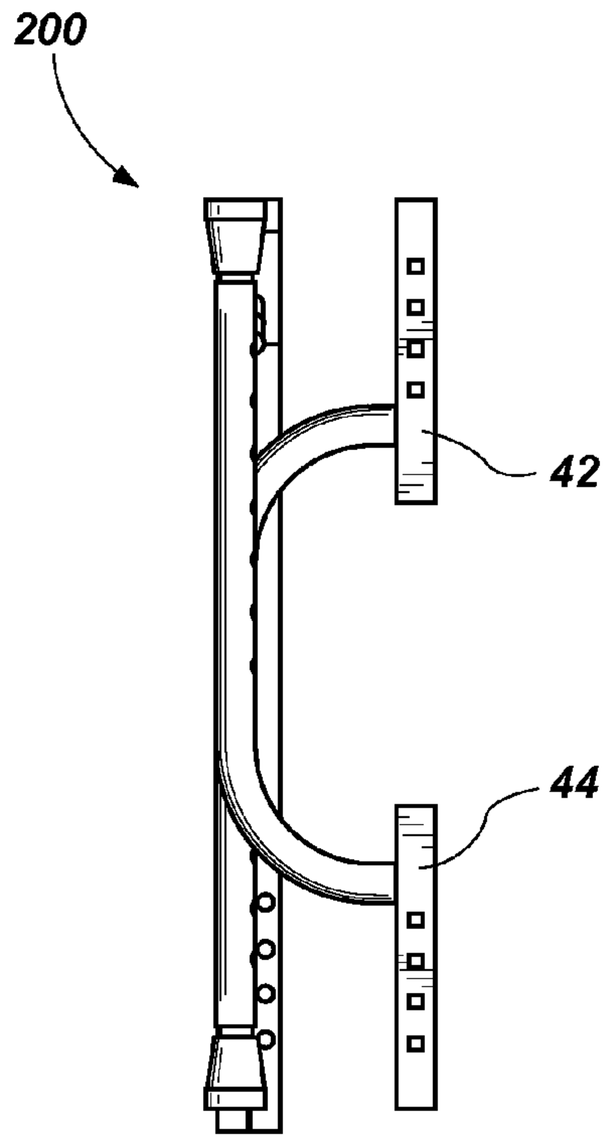

FIG. 7

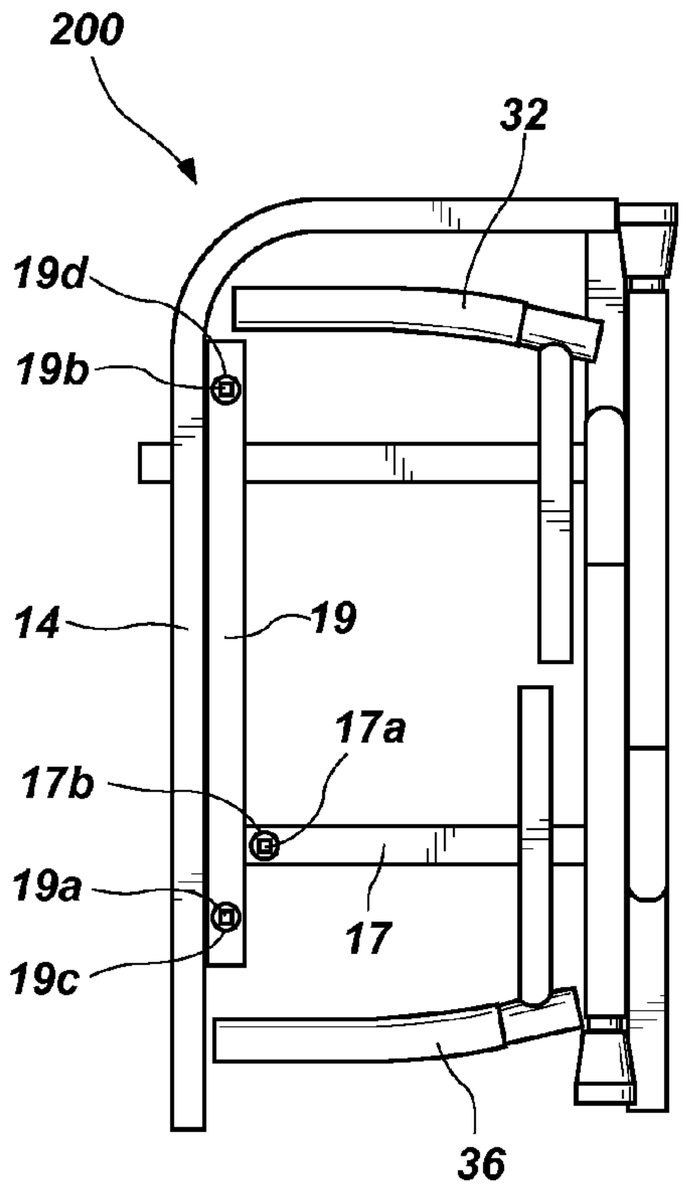

FIG. 8

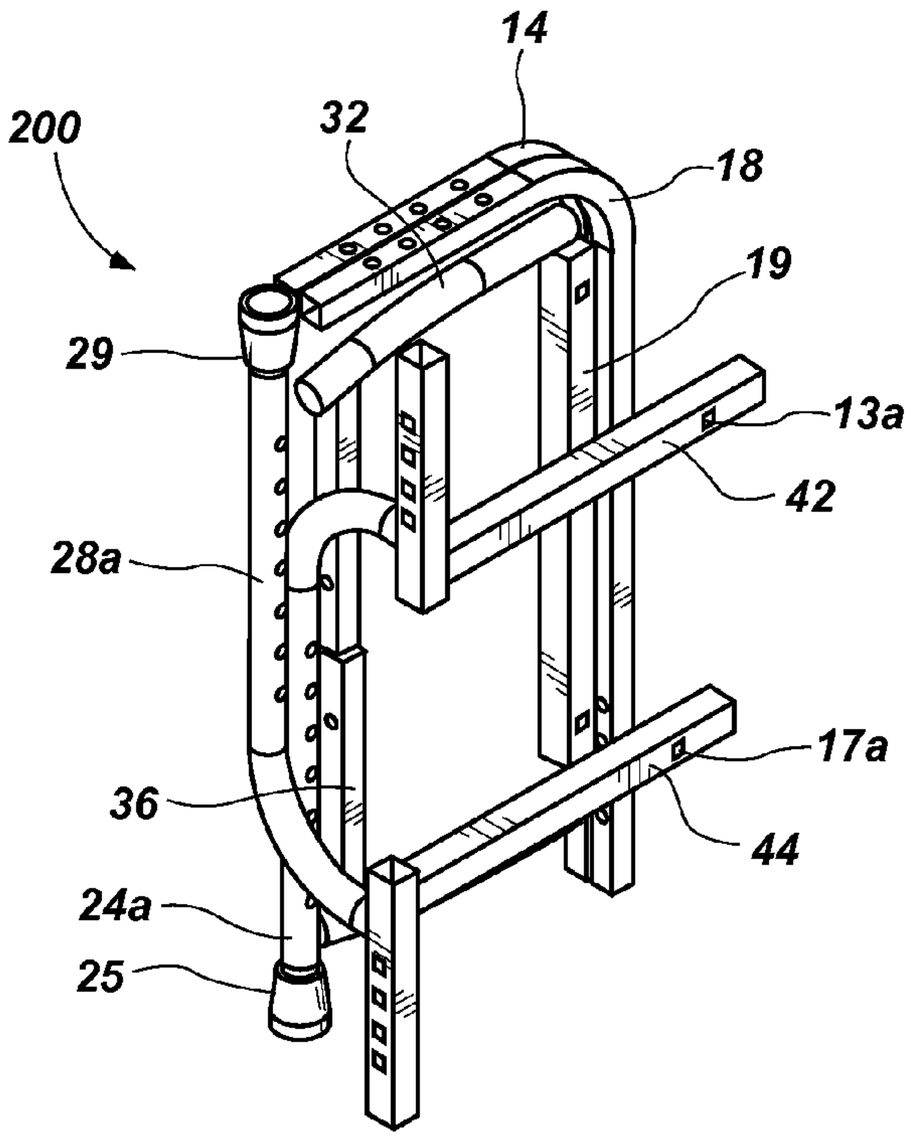

FIG. 9

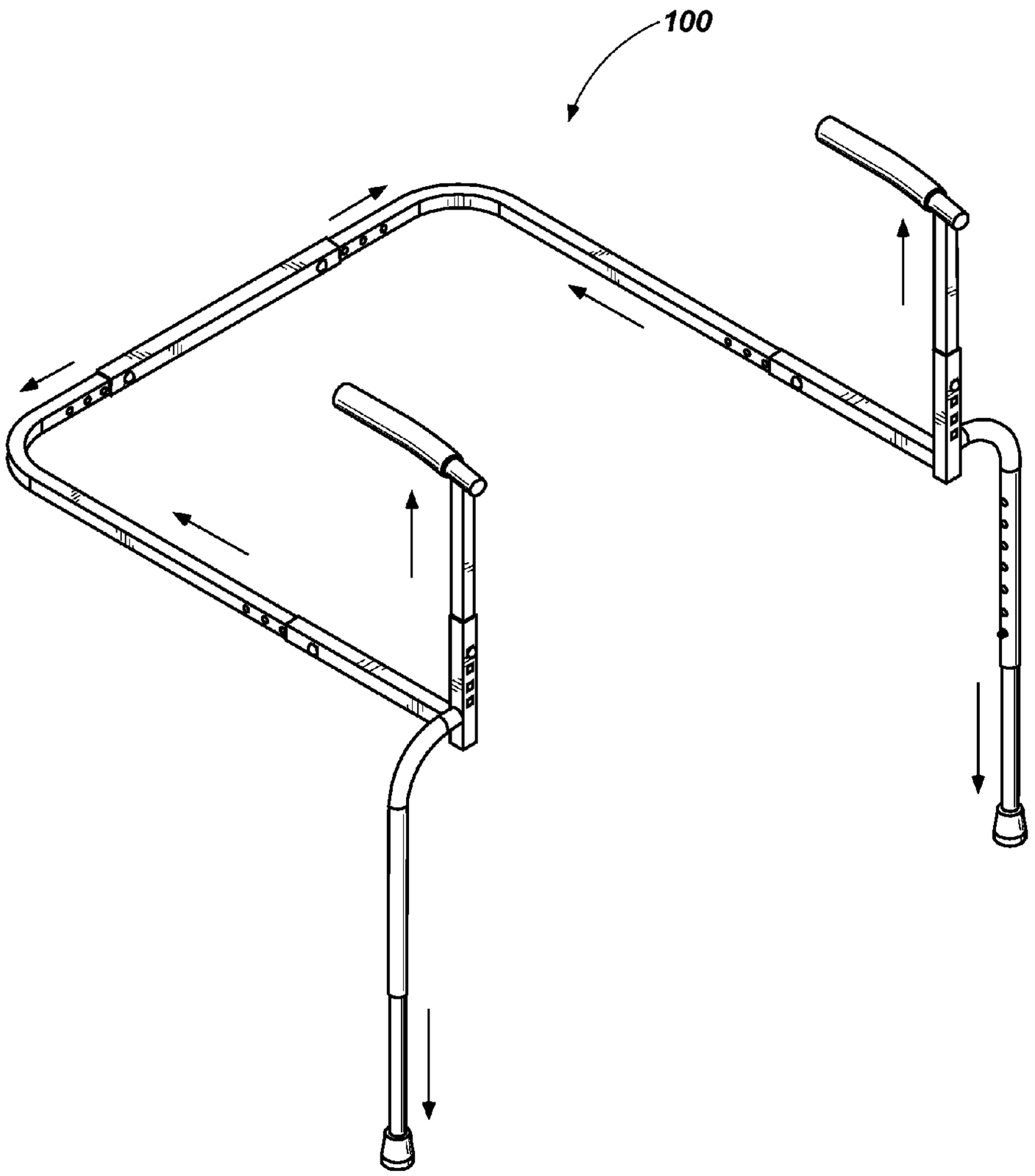

FIG. 10

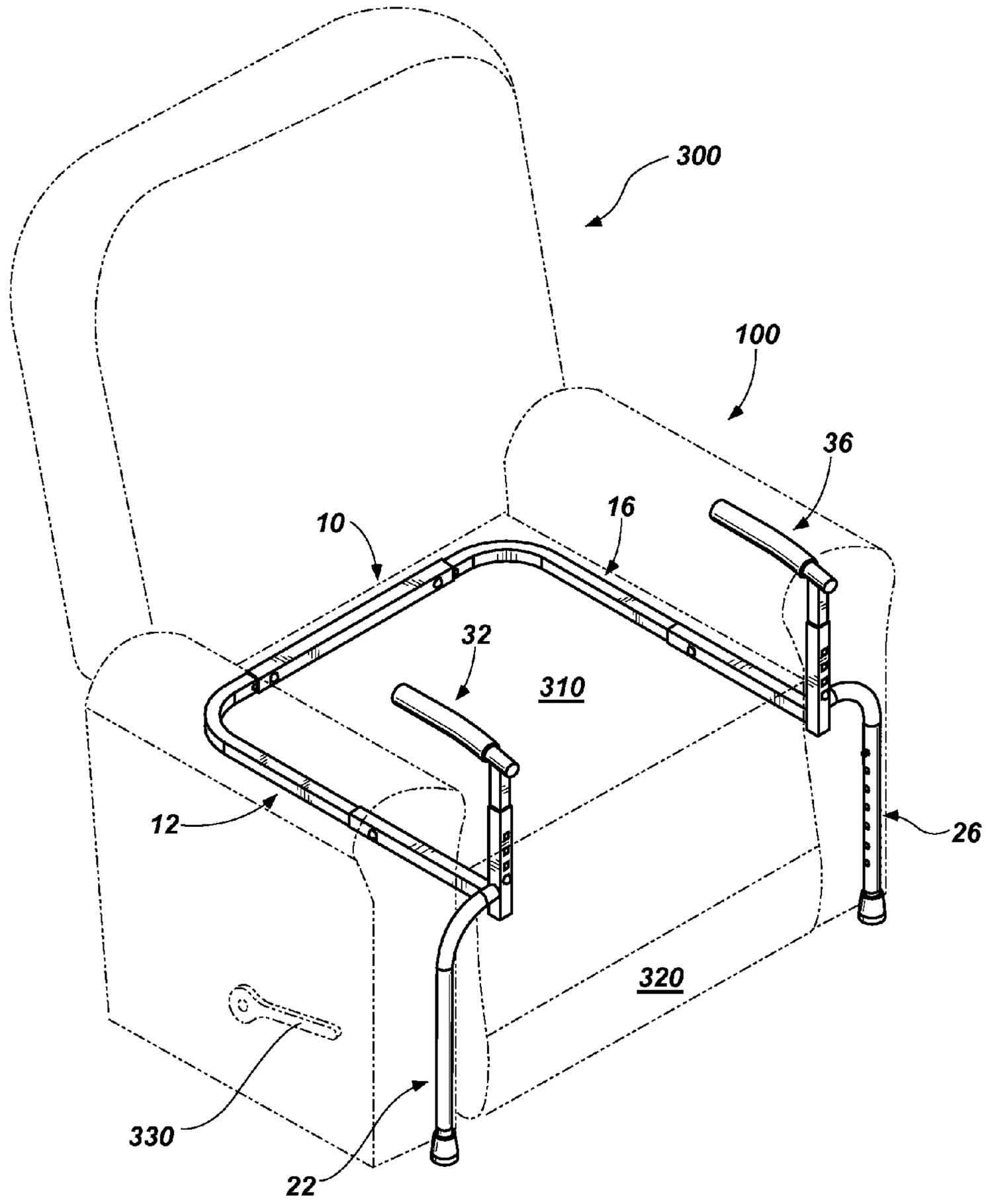

FIG. 11

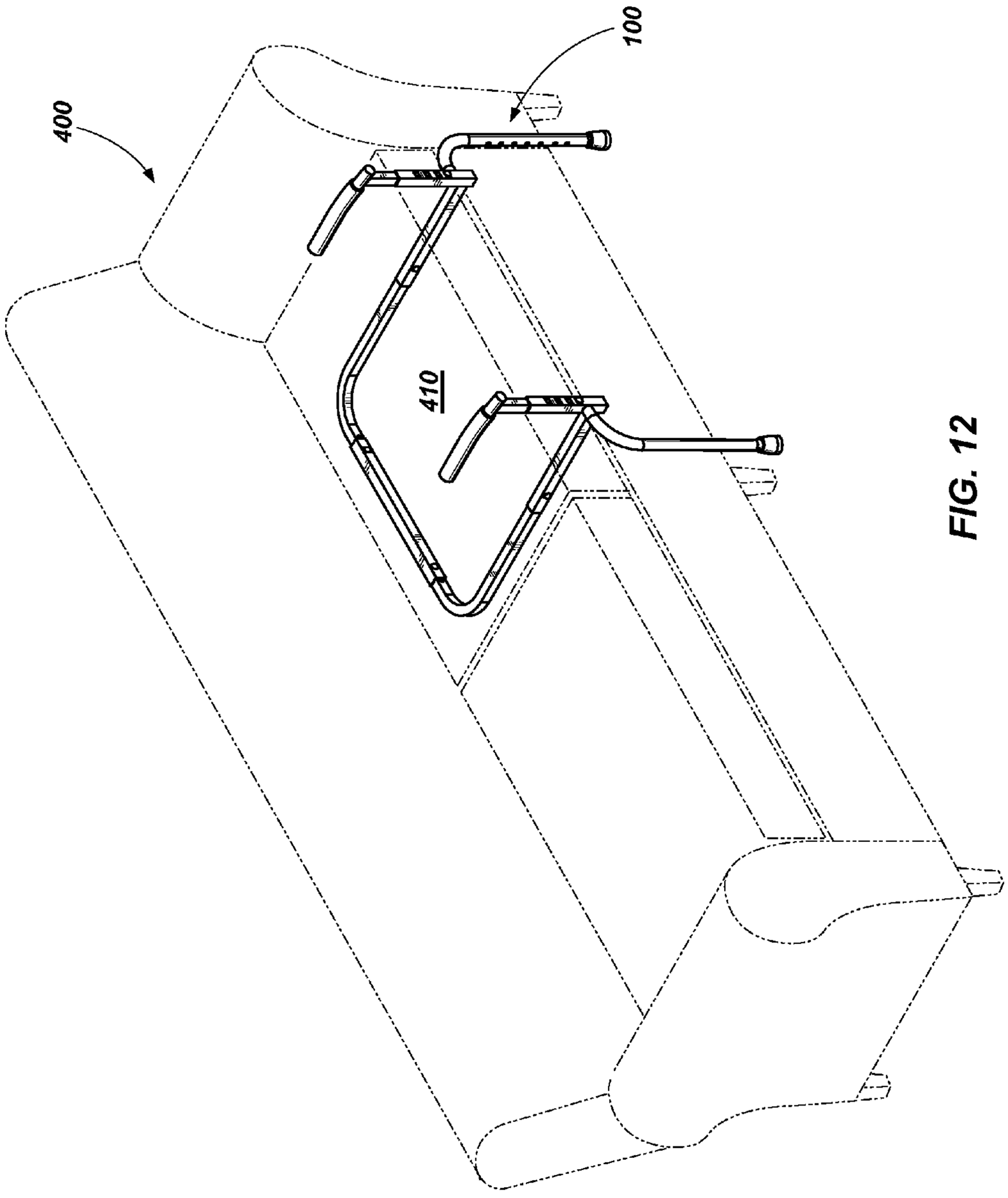

FIG. 12

UNIVERSAL STAND ASSISTANCE DEVICES, KITS THEREFOR, AND METHODS RELATED THERETO

TECHNICAL FIELD

The present disclosure relates generally to mobility assistance devices. More specifically, the present disclosure relates to universal stand assistance devices, kits therefore, and methods related thereto.

BRIEF DESCRIPTION OF THE DRAWINGS

The embodiments disclosed herein will become more fully apparent from the following description and appended claims, taken in conjunction with the accompanying drawings. The drawings depict primarily generalized embodiments, which will be described with additional specificity and detail in connection with the drawings in which:

FIG. **1** illustrates an assembled perspective view of one embodiment of a stand assistance device.

FIG. **2** illustrates an exploded view of the embodiment illustrated in FIG. **1**.

FIG. **3** illustrates a front view of the embodiment illustrated in FIG. **1**.

FIG. **4** illustrates a top view of the embodiment illustrated in FIG. **1**.

FIG. **5** illustrates a side view of the embodiment illustrated in FIG. **1**.

FIG. **6** illustrates a back view of the embodiment illustrated in FIG. **1**.

FIG. **7** illustrates a side view of one embodiment of an unassembled storage configuration of the embodiment illustrated in FIG. **1**.

FIG. **8** illustrates an underside view of the unassembled storage configuration of FIG. **7**.

FIG. **9** illustrates a perspective view of the unassembled storage configuration of FIG. **7**.

FIG. **10** illustrates an assembled view of the embodiment of FIG. **1** with each of the components fully extended.

FIG. **11** illustrates the use of the embodiment of FIG. **1** with a recliner.

FIG. **12** illustrates the use of the embodiment of FIG. **1** with a couch.

DETAILED DESCRIPTION

Universal stand assistance devices, kits therefor, and methods related thereto are disclosed herein. It will be readily understood that the components of the embodiments as generally described below and illustrated in the figures herein could be arranged and designed in a wide variety of different configurations. Thus, the following more detailed description of various embodiments, as described below and represented in the figures, is not intended to limit the scope of the disclosure but is merely representative of various embodiments. While the various aspects of the embodiments are presented in drawings, the drawings are not necessarily drawn to scale unless specifically indicated.

The phrases "operably connected to," "connected to," and "coupled to" refer to any form of interaction between two or more entities, including mechanical, electrical, magnetic, electromagnetic, fluid, and thermal interaction. Two entities may interact with each other even though they are not in direct contact with each other. For example, two entities may interact with each other through an intermediate entity, unless specified as directly interacting.

In some embodiments of a stand assistance device, the device comprises an anchor comprising a first arm and a second arm. Each of the first and second arms may comprise a proximal end and a distal end. The length of each of the first and second arms may be adjustable. A first leg may be coupled to the proximal end of the first arm. A second leg may be coupled to the proximal end of the second arm. The height of each of the first and second legs may be adjustable. A first handle may be coupled to the proximal end of the first arm. A second handle may be coupled to the proximal end of the second arm. The height of each of the first and second handles may be adjustable.

In some embodiments of a kit for a stand assistance device, the kit comprises a first leg comprising a straight portion that may be adjustable in length. The first leg may be coupled to a first joint comprising a first horizontal member and a first vertical member. The straight portion of the first leg may extend perpendicular to the first horizontal member of the first joint and may extend parallel and opposite to the first vertical member of the first joint. The first horizontal member may comprise a portion of a first arm of an anchor.

The kit may further comprise a second leg comprising a straight portion that may be adjustable in length. The second leg may be coupled to a second joint comprising a second horizontal member and a second vertical member. The straight portion of the second leg may extend perpendicular to the second horizontal member of the second joint and may extend parallel and opposite to the second vertical member of the second joint. The second horizontal member may comprise a portion of a second arm of the anchor.

The kit may further comprise a first handle configured to be coupled to the first vertical member of the first joint. The kit may also further comprise a second handle configured to be coupled to the second vertical member of the second joint.

In some embodiments of a method of installing a stand assistance device, the method comprises selecting a depth and a width of a U-shaped anchor of a stand assistance device. The method may further comprise placing the U-shaped anchor around the sides and back of a cushion or underneath the cushion of a chair or couch. The method may further comprise adjusting a length of legs extending downwards from the U-shaped anchor so that ends of the legs rest firmly on a floor. The method may further comprise selecting a height of handles extending upwards from the U-shaped anchor.

The figures illustrate one embodiment of a stand assistance device **100**. The stand assistance device **100** comprises various components and materials as further detailed below. Additionally, any combination of the individual components may comprise a kit for a stand assistance device.

FIG. **1** illustrates an assembled perspective view of the stand assistance device **100**. In the illustrated embodiment, the stand assistance device **100** comprises an anchor **10**. The anchor **10** comprises a first arm **12** and a second arm **16**. The first arm **12** comprises a proximal end **12***a* and a distal end **12***b*. Likewise, the second arm **16** comprises a proximal end **16***a* and a distal end **16***b*. The length of the first arm **12** is adjustable, and the length of the second arm **16** is adjustable.

In the illustrated embodiment, a first leg **22** is coupled to the proximal end **12***a* of the first arm **12**. A second leg **26** is coupled to the proximal end **16***a* of the second arm **16**. The height of the first leg **22** is adjustable, and the height of the second leg **26** is adjustable.

In the illustrated embodiment, a first handle **32** is coupled to the proximal end **12***a* of the first arm **12**. A second handle **36** is coupled to the proximal end **16***a* of the second arm **16**.

The height of the first handle **32** is adjustable. The height of the second handle **36** is also adjustable.

In the illustrated embodiment, the first arm **12** is parallel to the second arm **16**. Additionally, the distal end **12***a* of the first arm **12** is operably and adjustably connected to the distal end **16***a* of the second arm **16**. In the illustrated embodiment, the first arm **12** is rigidly coupled to the second arm **16**; however, the distance between the first arm **12** and the second arm **16** can be varied. In other embodiments, the first arm **12** may not be rigidly coupled to the second arm **16**. In still other embodiments, the first arm **12** may be rigidly coupled to the second arm **16** and the distance between the two arms cannot be adjusted.

In the illustrated embodiment, the anchor **10** also comprises a coupling member **19** adjustably connected to the distal end **12***a* of the first arm **12** and adjustably connected to the distal end **16***a* of the second arm **16**. The coupling member **19** is configured to vary the distance between the first arm **12** and the second arm **16**. In the illustrated embodiment, the coupling member **19** is in the same plane as the first arm **12** and the second arm **16**.

In the illustrated embodiment, the stand assistance device **100** further comprises a first upright arm **33** coupled to the proximal end **12***a* of the first arm **12**. The stand assistance device **100** also further comprises a second upright arm **37** coupled to the proximal end **16***a* of the second arm **16**. The first upright arm **33** is coupled to the first handle **32**, and the second upright arm **37** is coupled to the second handle **36**. The height of the first upright arm **33** is adjustable, and the height of the second upright arm **37** is also adjustable.

In the illustrated embodiment, the first upright arm **33** extends upwards from the proximal end **12***a* of the first arm **12** and the first leg **22** extends downwards from the proximal end **12***a* of the first arm **12**. Likewise, the second upright arm **37** extends upwards from the proximal end **16***a* of the second arm **16** and the second leg **26** extends downwards from the proximal end **16***a* of the second arm **16**.

In the illustrated embodiment, the first upright arm **33** is oriented perpendicular to the first arm **12** and the second upright arm **37** is oriented perpendicular to the second arm **16**. Additionally, the first leg **22** is oriented perpendicular to the first arm **12** and the second leg **26** is oriented perpendicular to the second arm **16**.

In the illustrated embodiment, the first leg **22** is outwardly offset from the proximal end **12***a* of the first arm **12** and the second leg **26** is outwardly offset from the proximal end **16***a* of the second arm **16**, such that the distance between the first and second legs **22**, **26** is wider than the distance between the first and second arms **12**, **16** of the anchor **10**. The first leg **22** comprises a curve portion **23** that offsets a straight portion **24** of the first leg **22** from the first upright arm **33** (and also from the proximal end **12***a*). The straight portion **24** is adjustable in length. Likewise, the second leg **26** comprises a curve portion **27** that offsets a straight portion **28** of the second leg **26** from the upright arm **37** (and also from the proximal end **16***a*). The straight portion **28** is adjustable in length.

In the illustrated embodiment, the first arm **12** comprises a first horizontal member **13** that includes the proximal end **12***a*. The first arm **12** also comprises a first arcuate member **14** adjustably connected to the first horizontal member **13**. The first arcuate member **14** includes the distal end **12***b* of the first arm **12**.

Likewise, in the illustrated embodiment, the second arm **16** comprises a second horizontal member **17** that includes the proximal end **16***a*. The second arm **16** also comprises a second arcuate member **18** adjustably connected to the second horizontal member **17**. The second arcuate member **18** includes the distal end **16***b* of the second arm **16**. In the illustrated embodiment, the distal end **12***b* of the first arcuate member **14** is adjustably connected to the coupling member **19** and the distal end **16***b* of the second arcuate member **18** is adjustably connected to the coupling member **19**.

In the illustrated embodiment, the first upright arm **33** comprises a first vertical member **34** directly coupled to the proximal end **12***a* of the first horizontal member **13**. The first handle **32** is adjustably coupled to the first vertical member **34**. In the illustrated embodiment, the first handle **32** comprises a shank **35** adjustably coupled to the vertical member **34**.

Likewise, in the illustrated embodiment, the second upright arm **37** comprises a second vertical member **38** directly coupled to the proximal end **16***a* of the second horizontal member **17**. The second handle **36** is adjustably coupled to the second vertical member **38**. The second handle **36** comprises a shank **39** adjustably coupled to the second vertical member **38**.

In the illustrated embodiment, the first horizontal member **13**, the first leg **22**, and the first vertical member **34** comprise a first joint **42**. Likewise, the second horizontal member **17**, the second leg **26**, and the second vertical member **38** comprise a second joint **44**.

In the illustrated embodiment, the curve portion **23** of the first leg **22** is directly coupled to the first vertical member **34**. Likewise, the curve portion **27** of the second leg **26** is directly coupled to the second vertical member **38**.

In the illustrated embodiment, the anchor **10** has a U shape. In other embodiments, the anchor **10** may have other shapes.

FIG. **2** illustrates an exploded view of the stand assistance device **100** and further illustrates how the components of the stand assistance device **100** are connected. FIG. **3** illustrates a front view of the assembled stand assistance device **100**. FIGS. **4-6** illustrates a top view, side view, and back view of the same, respectively.

In the illustrated embodiment, the first horizontal member **13** is configured to receive the long end of the first arcuate member **14**. A fastener **52** is used to fix the first horizontal member **13** to the first arcuate member **14** at the selected length. The first horizontal member **13** comprises a single square hole **13***a* in the inner face (FIG. **9**) and a corresponding round hole **13***b* in the outer face. Square hole **13***a* is configured to receive the square neck of a carriage bolt **52***a* of the fastener **52**. The round hole in the inner face is configured for receiving a recessed nut **52***b* of the fastener **52**. The long end of the first arcuate member **14** includes a series of round holes **14***a* for receiving the threaded portion of the carriage bolt **52***a*. The length of the first arm **12** is determined by which hole **14***a* is aligned with holes **13***a*, **13***b* to receive fastener **52**. Likewise, the length of the second arm **16** is determined by which hole **18***a* of the long end of second arcuate member **18** is aligned with holes **17***a*, **17***b* to receive the fastener **53**.

In the illustrated embodiment, one end of the coupling member **19** is configured to receive the short end of the first arcuate member **14** and the other end is configured to receive the short end of the second arcuate member **18**. The coupling member **19** comprises a square hole **19***a* at one end of the front face and a square hole **19***b* at the other end of the front face. Corresponding single round holes **19***c* and **19***d* (FIG. **8**) are formed at either end of the back face. The square hole **19***a* is configured to receive the square neck of a carriage bolt **54***a* of the fastener **54**. The round hole **19***c* in the back face is configured for receiving a recessed nut **54***b* of the

fastener **54**. The short end of the first arcuate member **14** includes a series of round holes **14***b* for receiving the threaded portion of the carriage bolt **54***a*. The square hole **19***b* is configured to receive the square neck of a carriage bolt **55***a* of the fastener **55**. The round hole **19***d* in the back face is configured for receiving a recessed nut **55***b* of the fastener **55**. The short end of the first arcuate member **18** includes a series of round holes **18***b* for receiving the threaded portion of the carriage bolt **55***a*. The distance between the first and second arms **12**,**16** is determined by which hole **14***b* is aligned with holes **19***a*, **19***c* to receive fastener **54** and which hole **18***b* is aligned with holes **19***b*, **19***d* to receive fastener **55**.

In the illustrated embodiment, the straight portion **24** of the first leg **22** comprises a fixed portion **24***a* and an adjustable portion **25**. In the illustrated embodiment, the curve portion **23** is directly coupled to the fixed portion **24***a*. The fixed portion **24***a* is configured to receive the adjustable portion **25**. Fastener **56** adjustably couples the adjustable portion **25** to the fixed portion **24***a*. In the illustrated embodiment, the fastener **56** comprises a biasable protrusion **25***b* located on an outer surface near the upper end of the adjustable portion **25** (FIG. **3**). The fastener **56** also comprises a series of holes **24***b* (FIG. **3**) formed in the fixed portion **24***a*. The fixed portion **24***a* includes a series of holes **24***b* (FIG. **3**). The holes **24***b* are configured to receive the biasable protrusion **25***b*. The biasable protrusion **25***b* may comprise a rigid button fixed to a spring bar. The spring bar may be attached to an inner surface of the adjustable portion **25**, and the rigid button may protrude through a hole in the outer surface of the adjustable portion **25**. The length of the first leg **22** is determined by which hole **24***b* is engaged with the biasable protrusion **25***b*.

Likewise, in the illustrated embodiment, the straight portion **28** of the second leg **26** comprises a fixed portion **28***a* and an adjustable portion **29**. In the illustrated embodiment, the curve portion **27** is directly coupled to the fixed portion **28***a*. The fixed portion **28***a* is configured to receive the adjustable portion **29**. Fastener **57** adjustably couples the adjustable portion **29** to the fixed portion **28***a*. In the illustrated embodiment, the fastener **57** comprises a biasable protrusion **29***b* located on an outer surface near the upper end of the adjustable portion **29** (FIG. **2**). The fastener **57** also comprises a series of holes **28***b* (FIG. **2**) formed in the fixed portion **28***a*. The holes **28***b* are configured to receive the biasable protrusion **29***b*. The length of the second leg **26** is determined by which hole **28***b* is engaged with the biasable protrusion **29***b*.

In the illustrated embodiment, the first vertical member **34** is configured to receive the shank **35**. A fastener **50** is used to fix the shank **35** to the first vertical member **34** at the selected height. The first vertical member **34** comprises a series of holes **34***a* in the front face and a series of holes **34***b* (FIG. **6**) in the back face. In particular, holes **34***a* are square holes for receiving the square neck of a carriage bolt **50***a* (FIG. **2**) of the fastener **50**. Holes **34***b* are round holes for receiving a recessed nut **50***b* (FIG. **2**) of the fastener **50**. The shank **35** includes a single round hole **35***a* in the front and back faces for receiving the threaded portion of the carriage bolt **50***a*. Likewise, the second vertical member **38** is configured to receive the shank **39** and fastener **51** is used to fix the shank **39** to the second vertical member **38** at the selected height.

It should be understood that the illustrated embodiment is an exemplary embodiment. In the illustrated embodiment, fasteners **50-55** are interchangeable and do not have abrasive edges. Likewise, fasteners **56** and **57** do not have abrasive edges. In other embodiments, different fasteners that may or may not be interchangeable may be used. In some embodiments, fasteners with abrasive edges may be used. For example, hex head bolts could be used instead of carriage bolts in fasteners **50-55**. In other examples, hex nuts, lock nuts, or wing nuts could be used instead of recessed nuts.

It should also be understood that numerous other variations to the illustrated embodiments are encompassed by this disclosure. In some embodiments, the first and second upright arms **33**, **37** may not be perpendicular to the first and second arms **12**, **16**. In some embodiments, the first and second legs **22**, **26** may not be perpendicular to the first and second arms **12**, **16**. In some embodiments, the first and second legs **22**, **26** may not be outwardly offset. In some embodiments, the straight portion **24** may be offset from the first vertical member **34** by a structure other than the curve portion **23**. Likewise, the straight portion **28** may be offset from the second vertical member **38** by a structure other than the curve portion **27**.

Examples of other variations include that in some embodiments, the coupling member **19** may not be present, such as in embodiments where the first arm **12** is not coupled to the second arm **16**. In the illustrated embodiment, the anchor **10** has a "square" cross-sectional shape. In other variations, the anchor **10** may have a round, an oval, or any other cross-sectional shape. Likewise, any component of the stand assistance device **100** may have cross-sectional shapes that differ from the cross-sectional shape in the illustrated embodiment.

The illustrated embodiment only shows exemplary components and mechanisms for adjusting the length of the first and second arms **12**, **16**, the first and second legs **22**, **26**, and the first and second handles **32**, **36**. In other embodiments, different ways and components for adjusting the length of the arms, legs, and handles may be used.

In some embodiments of a kit for the stand assistance device **100**, the kit may comprise the first and second joints **42**, **44**. The kit may further comprise the first and second handles **32**, **36**. The kit may also further comprise the first and second arcuate members **14**, **18** and the coupling member **19**.

FIGS. **7-9** illustrate one embodiment of a kit **200** for the stand assistance device **100**. FIG. **7** illustrates a side view of the kit **200** in one embodiment of an unassembled storage configuration. FIG. **8** illustrates an underside view of the same. FIG. **9** illustrates a perspective view of the same.

In the illustrated embodiment, the kit **200** comprises the first joint **42** and the second joint **44**. The kit **200** further comprises the first and second arcuate members **14**, **18** and the coupling member **19**. The **200** also comprises the first and second handles **32**, **36**. In the illustrated embodiment, the first and second arcuate members **14**, **18** are interchangeable. Likewise, in the illustrated embodiment, the first and second handles **32**, **36** are also interchangeable.

In the illustrated embodiment of the kit **200**, the biasable protrusions **25***b* and **29***b* are not visible, because they have been depressed and the adjustable portions **25** and **29** have been fully inserted, respectively, into the fixed portions **24***a* and **28***a*.

In the illustrated embodiment, the kit **200** may be packaged in a box having a length about equal to the length of the first and second arcuate members **14**, **18**, a width about equal to the width of the first and second arcuate members **14**, **18**, plus the diameter of the widest portion of the second leg **26**, and a height about equal to the width of the first and second joints **42**, **44**.

FIG. **10** illustrates an assembled view of the stand assistance device **100** with the first and second arms **12**, **16** fully extended, the distance between the first and second arms **12**, **16** maximized, the first and second legs **22**, **26** fully extended, and the first and second handles **32**, **36** fully extended. It should be understood that the stand assistance device **100** may be configured any number of ways to fit various sizes of furniture.

In some embodiments of a method of installing the stand assistance device **100**, the method comprises selecting a depth and a width of the anchor **10**. The method may further comprise placing the anchor **10** around the sides and back of a cushion or underneath the cushion of a chair or couch. The method may further comprise adjusting the length of the first and second legs **22**, **26** so that the ends of the legs rest firmly on the floor. The method may further comprise selecting a height of the first and second handles **32**, **36**.

FIG. **11** illustrates the use of the stand assistance device **100** with a recliner **300**. The recliner **300** comprises a cushion **310**, a footrest **320**, and an actuator **330**. One of the benefits of the stand assistance device **100** is that the depth and width of the anchor **10** may be adjusted to fit the size of the cushion **310**. As illustrated in FIG. **11**, the anchor **10** can be sized to circumscribe the sides and back of the cushion **310**. Once sized, the anchor **10** can then be placed around the cushion **310** and allowed to rest below the upper surface of the cushion **310**. The length of the first and second legs **22**, **26** may then be adjusted to rest upon the floor. The height of the first and second handles **32**, **36** may also be adjusted to a desired height. Another benefit of the stand assistance device **100** is that it may be used with the recliner **300** even if the footrest **320** is wider than the cushion **310**. This is because the distance between the first and second legs **22**, **26** is wider than the distance between the first and second arms **12**, **16** (i.e., the width of the anchor **10**). However, the stand assistance device **100** may be used with furniture other than recliners.

FIG. **12** illustrates the use of the stand assistance device **100** with a couch **400**. The couch **400** comprises a cushion **410**. The depth of the anchor **10** may be adjusted so as to not exceed the depth of the cushion **410**. As illustrated in FIG. **12**, the anchor **10** may then be slid underneath the cushion **410** (or the cushion **410** may be removed, the anchor **10** put in place, and then the cushion **410** placed over the anchor **10**). The length of the first and second legs **22**, **26** may then be adjusted to rest upon the floor. The height of the first and second handles **32**, **36** may also be adjusted to a desired height.

Without further elaboration, it is believed that one skilled in the art can use the preceding description to utilize the present disclosure to its fullest extent. The examples and embodiments disclosed herein are to be construed as merely illustrative and exemplary and not a limitation of the scope of the present disclosure in any way. It will be apparent to those having skill in the art, and having the benefit of this disclosure, that changes may be made to the details of the above-described embodiments without departing from the underlying principles of the disclosure herein.

The invention claimed is:

1. A stand assistance device comprising:

an anchor comprising a first arm, a second arm, and a coupling member, wherein each of the first and second arms comprises a proximal end and a distal end and wherein a length of each of the first and second arms is adjustable, and wherein the coupling member is the only member that couples the first arm and the second arm;

a first leg coupled to the proximal end of the first arm and a second leg coupled to the proximal end of the second arm, wherein a height of each of the first and second legs is adjustable, wherein there are no other legs than the first leg and the second leg; and

a first handle coupled to the proximal end of the first arm and a separate second handle coupled to the proximal end of the second arm, wherein a height of each of the first and second handles is separately adjustable, wherein the height of the first handle is also separately adjustable from the height of the first leg and the height of the second handle is also separately adjustable from the height of the second leg.

2. The stand assistance device of claim **1**, wherein the first arm is parallel to the second arm.

3. The stand assistance device of claim **1**, wherein the distal end of the first arm is operably connected to the distal end of the second arm.

4. The stand assistance device of claim **3**, wherein the distal end of the first arm is adjustably connected to the distal end of the second arm.

5. The stand assistance device of claim **1**, wherein the coupling member is adjustably connected to the distal end of the first arm and adjustably connected to the distal end of the second arm, wherein the coupling member is configured to vary a distance between the first arm and the second arm.

6. The stand assistance device of claim **5**, wherein the coupling member is in the same plane as the first and second arms.

7. The stand assistance device of claim **1**, further comprising a first upright arm coupled to the proximal end of the first arm and a second upright arm coupled to the proximal end of the second arm, and wherein the first upright arm is coupled to the first handle and the second upright arm is coupled to the second handle.

8. The stand assistance device of claim **7**, wherein the first upright arm is oriented perpendicular to the first arm and the second upright arm is oriented perpendicular to the second arm.

9. The stand assistance device of claim **7**, wherein a height of each of the first and second upright arms is adjustable.

10. The stand assistance device of claim **7**, wherein the first upright arm extends upwards from the proximal end of the first arm and the first leg extends downwards from the proximal end of the first arm and wherein the second upright arm extends upwards from the proximal end of the second arm and the second leg extends downwards from the proximal end of the second arm.

11. The stand assistance device of claim **1**, wherein the first leg is oriented perpendicular to the first arm and the second leg is oriented perpendicular to the second arm.

12. The stand assistance device of claim **1**, wherein an axis of the first leg is outwardly offset from an axis of the first handle and an axis of the second leg is outwardly offset from an axis of the second handle.

13. The stand assistance device of claim **1**,

wherein the coupling member is adjustably connected to the distal end of the first arm and adjustably connected to the distal end of the second arm, wherein the coupling member is configured to vary a distance between the first arm and the second arm, wherein the first and second arms and the coupling member are in the same plane as each other,

wherein the first leg is oriented perpendicular to the first arm and the second leg is oriented perpendicular to the second arm, wherein the first leg is outwardly offset

from the proximal end of the first arm and the second leg is outwardly offset from the proximal end of the second arm; and

further comprising a first upright arm coupled to the proximal end of the first arm and a second upright arm coupled to the proximal end of the second arm, and wherein the first upright arm is coupled to the first handle and the second upright arm is coupled to the second handle, wherein the first upright arm is oriented perpendicular to the first arm and the second upright arm is oriented perpendicular to the second arm, wherein a height of each of the first and second upright arms is adjustable, wherein the first upright arm extends upwards from the proximal end of the first arm and the first leg extends downwards from the proximal end of the first arm and wherein the second upright arm extends upwards from the proximal end of the second arm and the second leg extends downwards from the proximal end of the second arm.

14. A kit for a stand assistance device comprising:

a first joint comprising a first horizontal member and a first vertical member, wherein the first horizontal member comprises a portion of a first arm of an anchor;

a first leg comprising a straight portion adjustable in length, wherein the first leg is coupled to the first joint, wherein the straight portion of the first leg extends perpendicular to the first horizontal member of the first joint and extends parallel and opposite to the first vertical member of the first joint, wherein the first leg in its shortest adjustment is longer than the first vertical member of the first joint;

a second joint comprising a second horizontal member and a second vertical member, wherein the second horizontal member comprises a portion of a second arm of the anchor;

a second leg comprising a straight portion adjustable in length, wherein the second leg is coupled to the second joint, wherein the straight portion of the second leg extends perpendicular to the second horizontal member of the second joint and extends parallel and opposite to the second vertical member of the second joint, wherein the second leg in its shortest adjustment is longer than the second vertical member of the second joint, wherein there are no other legs than the first leg and the second leg;

a first handle configured to be adjustably coupled to the vertical member of the first joint;

a separate second handle configured to be coupled to the vertical member of the second joint;

a first arcuate member configured to be adjustably connected to the horizontal member of the first joint and when connected to form a portion of the first arm of the anchor; and

a second arcuate member configured to be adjustably connected to the horizontal member of the second joint and when connected to form a portion of the second arm of the anchor.

15. The kit of claim **14**, wherein the first leg comprises a curve portion that offsets the straight portion of the first leg from the first vertical member of the first joint and the second leg comprises a curve portion that offsets the straight portion of the second leg from the second vertical member of the second joint.

16. The kit of claim **14**, wherein second handle is configured to be adjustably coupled to the second vertical member of the second joint.

17. The kit of claim **14**, further comprising a coupling member configured to be adjustably connected to the first arcuate member and adjustably connected to the second arcuate member and when connected to form a portion of the anchor.

18. The kit of claim **14**, wherein the first handle comprises a shank configured to be adjustably coupled to the vertical member of the first joint and wherein the second handle comprises a shank configured to be adjustably coupled to the vertical member of the second joint.

19. A method of installing a stand assistance device, the method comprising:

selecting a depth and a width at the time of installation of a U-shaped anchor of a stand assistance device, wherein arms of the U-shaped anchor only connect to each other, directly or indirectly, via a single coupling member;

placing the U-shaped anchor around the sides and back of a cushion or underneath the cushion of a chair or couch;

adjusting a length of legs extending downwards from the U-shaped anchor so that ends of the legs rest firmly on a floor; and

selecting separately a height of handles extending upwards from the U-shaped anchor.

20. The method of claim **19**, wherein placing the U-shaped anchor around the sides and back of the cushion comprises recessing the U-shaped anchor below the upper surface of the cushion.

21. The method of claim **19**, wherein the cushion comprises a recliner cushion.

22. The method of claim **21**, wherein a distance between axes of the legs is greater than a distance between axes of the handles, such that a footrest of the recliner is capable of being extended and retracted without impinging on the legs of the stand assistance device.

23. The method of claim **19**, wherein the height of the handles is selected so as to be similar to a height of an arm of the chair or couch.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 9,561,146 B2
APPLICATION NO. : 14/178050
DATED : February 7, 2017
INVENTOR(S) : F. Troy Miller

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

Column 10, Line 11 reads, "…wherein second handle is…" which should read, "…wherein the second handle is…"

Signed and Sealed this
Twenty-seventh Day of June, 2017

Joseph Matal

Joseph Matal
Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office